Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-4 (Cancelled)

5. (Currently amended) An image sensor comprising:

(a) a plurality of light receiving elements a portion of which have a color filter mated with the light receiving elements, and the light receiving elements are arranged in an array;

(b) a plurality of floating diffusions respectively mated with the plurality of light receiving elements;

(c) at least one ~~two~~ column circuit ~~circuits~~ connected to each column of light receiving elements ~~and used to store the signal from the light receiving elements one row at a time~~; and

(d) a select switch used to control which column circuit a particular signal from a light receiving element is stored, wherein a color difference readout signal is output when a reset signal and a light signal for one color in a row are stored in at least one column circuit ~~is obtained by sampling the signal of one color~~ and a reset signal and a light signal for a different color in the same row are stored in the same at least one column circuit ~~the light signal level for that column circuit is obtained by sampling the signal of a different color~~.

6. (Previously presented) The image sensor as in claim 5, wherein substantially all of the signals from the light receiving elements that are in the same column with the same colors are transferred to the same column circuit.

7. (Original) The image sensor as in claim 6, wherein adjacent samples in each column circuit are averaged.

8. (Currently amended) A camera comprising:

(a) an image sensor comprising:

(a1) a plurality of light receiving elements a portion of which have a color filter mated with the light receiving elements, and the light receiving elements are arranged in an array;

(a2) a plurality of floating diffusions respectively mated with the plurality of light receiving elements;

(a3) at least one ~~two~~ column ~~circuits~~ circuit connected to each column of light receiving elements ~~and used to store the signal from the light receiving elements one row at a time~~; and

(a4) a select switch connected to one or more column circuit and used to control which column circuit a particular signal from a light receiving element is stored, wherein a color difference readout signal is output when a reset signal and a light signal for one color in a row are stored in at least one column circuit ~~is obtained by sampling the signal of one color~~ and a reset signal and a light signal for a different color in the same row are stored in the same at least one column circuit ~~the light signal level for that column circuit is obtained by sampling the signal of a different color~~.

9. (Previously presented) The camera as in claim 8, wherein substantially all of the signals from light receiving elements in the column with the same colors are transferred to the same column circuit.

10. (Original) The camera as in claim 9, wherein adjacent samples in each column circuit are averaged.

11. (Currently amended) An x-y addressable image sensor comprising:

(a) a plurality of light receiving elements arranged in an array of rows and columns that convert the light to a signal;

(b) means for reading out two or more samples of a same signal from each light receiving element in at least one row;

(c)~~(b)~~ at least two signal storage banks comprised of individual signal storage elements; each of the at least two storage banks having enough individual storage elements to store the two or more signals from the at least one row of light receiving elements in the array, wherein the two or more ~~multiple~~

samples of the same ~~each~~ signal ~~from at least one row of light receiving elements~~ are concurrently stored in different individual signal storage elements; and

(d)~~(c)~~ at least two select mechanisms which can direct signals from the plurality of light receiving elements to any single or combination of the signal storage banks.

12. (Previously presented) The image sensor as in claim 11 further comprising a plurality of color filters mated with the plurality of light receiving elements, and the select mechanism is used to send signals from the light receiving elements mated to a single color filter type to a desired signal storage bank such that, for any given row, a single signal storage bank contains signals from a single color type.

13. (Currently amended) The image sensor as in claim 12 wherein the color filter is a Bayer pattern in which signals from a single color type are ~~type is~~ sent to only one of the two signal storage banks.

14. (Original) The image sensor as in claim 13, wherein the single color type sent to only one of the storage regions is green.

15. (Original) The image sensor as in claim 11, wherein the individual signal storage elements in the signal storage banks are larger than light measuring element pitch.

16. (Previously presented) The image sensor as in claim 11, wherein the at least two select mechanisms direct signals from the each of the plurality of light receiving elements to both signal storage banks.

17. (Original) The image sensor as in claim 11 further comprising a plurality of signal storage banks and the at least two select mechanisms direct signals to multiple signal storage banks.

18. (Original) The image sensor as in claim 11, wherein a single pixel can be directed to multiple single storage elements within any signal storage bank.

19. (Previously presented) The image sensor of claim 18, wherein adjacent signals from the light receiving elements in the adjacent signal storage elements are averaged to produce a single value.

20. (Original) The image sensor as in claim 11, wherein a single pixel can be directed to adjacent individual signal storage elements within any signal storage bank.

21. (Previously presented) The image sensor of claim 20, wherein adjacent signals from the light receiving elements in the adjacent signal storage elements are averaged to produce a single value.

Claims 22-25 (Cancelled)

26. (Currently amended) A camera comprising:

an x-y addressable image sensor comprising:

(a) a plurality of light receiving elements arranged in an array of rows and columns that convert the light to a signal;

(b) means for reading out two or more samples of a same signal from each light receiving element in at least one row;

(c)~~(b)~~ at least two signal storage banks comprised of individual signal storage elements; each of the at least two storage banks having enough individual storage elements to store the two or more signals from the at least one row of light receiving elements in the array, wherein the two or more ~~multiple~~ samples of the same ~~each~~ signal ~~from at least one row of light receiving elements~~ are concurrently stored in different individual signal storage elements; and

(d)~~(c)~~ at least two select mechanisms which can direct signals from the plurality of light receiving elements to any single or combination of the signal storage banks.

27. (Previously presented) The camera as in claim 26 further comprising a plurality of color filters mated with the plurality of light receiving elements, and the select mechanism is used to send signals from the light receiving elements mated to a single color filter type to a desired signal storage bank such that, for any given row, a single signal storage bank contains signals from a single color type.

28. (Currently amended) The camera as in claim 27 wherein the color filter is a Bayer pattern in which signals from ~~a color of~~ a single color type are ~~is~~ sent to only one of the two signal storage banks.

29. (Original) The camera as in claim 28, wherein the single color type sent to only one of the storage regions is green.

30. (Original) The camera as in claim 26, wherein the individual signal storage elements in the signal storage banks are larger than light measuring element pitch.

31. (Previously presented) The camera as in claim 26, wherein the at least two select mechanisms direct signals from the each of the plurality of light receiving elements to both signal storage banks.

32. (Original) The camera as in claim 26 further comprising a plurality of signal storage banks and the at least two select mechanisms direct signals to multiple signal storage banks.

33. (Original) The camera as in claim 26, wherein a single pixel can be directed to multiple single storage elements within any signal storage bank.

34. (Previously presented) The camera as in claim 33, wherein adjacent signals from the light receiving elements in the adjacent signal storage elements are averaged to produce a single value.

35. (Original) The camera as in claim 26, wherein a single pixel can be directed to adjacent individual signal storage elements within any signal storage bank.

36. (Previously presented) The camera as in claim 35, wherein adjacent signals from the light receiving elements in the adjacent signal storage elements are averaged to produce a single value.

Claims 37-40 (Cancelled)

Claim 41 (New) A method for operating an x-y addressable image sensor that includes at least two storage banks comprised of individual storage elements each of the at least two storage elements having enough individual storage elements to store signals from at least one row of light receiving elements, the method comprising:

capturing a single image;

reading out two or more samples of the same signal for each light receiving element in the at least one row;

storing the two or more samples of the same signal in respective storage elements in the at least two storage banks.

Claim 42 (New) The method as in claim 41, further comprising:

for each light receiving element in the at least one row, reading out the two or more samples of the same signal from the respective storage elements; and

averaging the two or more samples to generate a single average signal.